

After reading these statements I carefully examined my own collection and found that the sixty-six adults collected at La Grange, Miami, Key West, Everglade, Mt. Myers and Punta Gorda, Florida, were in every case females, as were also two from Guantanamo in Cuba. However, among seven adults collected in the Reptile House of the New York Zoölogical Society on January 12, 1914, I discovered a single male, easily told by its smaller body and longer cerci. These roaches, together with many *Periplaneta americana*, were found among the straw in the winter quarters of the giant land turtles.

It is well known that among some of our native roaches the females long outlive the males, and it is quite possible that the males of the Surinam roach occur in very early spring in southern Florida.—
WM. T. DAVIS.

PROCEEDINGS OF THE NEW YORK ENTOMOLOGICAL SOCIETY.

MEETING OF DECEMBER 3.

A regular meeting of the New York Entomological Society was held at 8:15 P.M., December 3, 1918, in the American Museum of Natural History; President L. B. Woodruff in the chair, with eighteen members and three visitors present, including Prof. O. P. Medsger, of the Torrey Botanical Club.

Mr. L. B. Reynolds, 11 Ellsworth Ave., Brockton, Mass., and Sergt. W. B. Richardson, Richmond, Va., were elected active members.

Mr. Davis spoke with regret of the death of Frederick Knab, reading some extracts from a letter of his executor, A. N. Caudell, relative to the dispersal of his ashes by wind in the woods.

Mr. Dickerson read for Mr. Weiss a paper on "Some Beetles from Rose Mallow," illustrated by specimens of the beetles and their work in the plant and as far as possible by larvæ and pupæ. The paper will be printed under the joint authorship of Messrs. Weiss and Dickerson.

Mr. Leng spoke of the dubious identity of *Chatocnema* they had found on the leaves, probably a variety of *quadricollis* Sz. described from Florida.

Mr. Shoemaker exhibited a large number of "Lepidoptera from Slide Mountain," saying that he had visited the locality for the last three years and mentioning many of the valuable captures he had made at sugar; also the *Cychnus viduus* found in the same way.

Mr. Davis exhibited six boxes of Lepidoptera captured while with Mr. Shoemaker in June and with Dr. Bequaert and Mr. Engelhardt in September and a number of photographs of the locality. He read from his journal

notes made at the time, which showed how he and Mr. Shoemaker had sugared until midnight. The moths that were so plentiful in June were nearly absent in September, but more butterflies were found, often attracted by urine on the road. Mr. Davis noted that of the June noctuids many were in the first part of the list, the September species coming later in the list as well as in the season; and spoke also of the generic changes in Lepidoptera due to proper recognition of Hübner's names. He closed by suggesting a correction in Lovell's book, "The Flower and the Bee," where it is said that lilies with inverted blossoms are not fertilized by Lepidoptera, based upon specimens of *Papilio* he exhibited with their wings heavily coated with pollen of *Lilium superbum*. These had been caught by Mr. Burns on Staten Island and by himself at Yaphank.

Mr. Woodruff spoke of the abundance and tameness of the deer near Fancher's, where he had met Messrs. Davis and Engelhardt, also of the bear and other animals.

Mr. Engelhardt spoke of the great difference in the summits of the various Catskill Mountains.

Mr. Medsger, director of nature study in boys' camps in the Catskills, who was present as a visitor, also exhibited Lepidoptera caught in his tent during July and August, and spoke of meeting Mr. Dow and of the botany of the Catskills, describing particularly the deep moss to be found on the steep face of Slide, Wittenberg and Cornell Mts. The last, reached conveniently from Woodland, Ulster Co., N. Y., was especially recommended on account of the stand of virgin red spruce on the summit.

Mr. Mutchler exhibited a series of *Sobarus foggei* Harold, an African prionide collected by Lang & Chapin, commenting upon the exceptional character of its red bands, the subfamily to which it belongs being generally devoid of brilliant colors.

MEETING OF DECEMBER 17.

A regular meeting of the New York Entomological Society was held at 8:15 P.M., December 17, 1918, in the American Museum of Natural History, Mr. Wm. T. Davis, chairman pro tem., with twenty members and three visitors present.

A letter from Lieut. W. J. Chamberlin, 91st Aëro Squadron, France, was read.

Dr. Lutz read a "Review of Comstock's System of Wing Venation," illustrated by blackboard sketches, in which the development of a uniform terminology, the studies of various authors in the wings of nymphs and pupæ as well as adults and the relation between the tracheation and venation were explained. The primitive type of wing was sketched and the process of evolution stated. In conclusion Dr. Lutz expressed his admiration of the result from the point of view of comparative anatomy, but doubted its immediate universal acceptance as a taxonomic system on account of the necessarily cumbersome formulæ it involved in designating the wings of highly specialized insects.

His remarks were discussed by Messrs. Olsen, Halinan, Davis and Engelhardt.

Mr. Weiss read a paper on "Lepidopterous Insects found on Hibiscus," which will be printed in full. The adults, larvæ and work of each species were shown.

Mr. Doll, present as a visitor, spoke of the larvæ of *Acontia delecta* as very abundant at Arlington, N. J., but heavily parasitized; and of the method employed by his friend, Mr. Rummel, to collect larvæ of *Apanthesis* by heaping together boards, etc., as traps.

Mr. Engelhardt said he believed the larvæ of *Acontia delecta* were nocturnal feeders, because though seldom seen on bright days, they were numerous in the same locality when the day became overcast.

Mr. Dickerson read a paper on "Miscellaneous Insects found on Hibiscus," covering the galls, plant lice, leaf hoppers, beetles, bees and ants found on the plant during the long period he and Mr. Weiss had it under observation. His illustration included the specimens they had caught.

Dr. Lutz expressed his admiration of the work of Messrs. Weiss and Dickerson on hibiscus insects and his appreciation of the value of special work of such character.

Mr. Olsen spoke of Dr. Brittain's leaf-hopper papers and Mr. Davis exhibited Dr. Felt's "Key to American Insect Galls" in connection with Mr. Dickerson's paper.

Mr. Jones exhibited five boxes of Lepidoptera that he had collected during the year, giving a brief account of his journey through southern Arizona in April and California in May, June and July, ending with a trip to Alaska and homeward journey through the Canadian Rocky Mountains. He said that butterflies were so plentiful in Plumas County, Calif., where he stayed two months to study pitcher plant fauna, that he caught sixty species in the first two weeks and eighty species in all. The case-bearing moths captured were of great interest because all were rare in collections and several previously known by unique examples. Mr. Jones showed also examples of *Parnassius* taken at 7,000 ft. elevation, where they were abundant, and many photographs.

Mr. Davis commented on the beautiful exhibit of rare butterflies and upon Mr. Jones having also taken the time to catch cicadas for him.

Mr. Engelhardt presented a photograph of the home of Dr. Fenyes and suggested the propriety of obtaining a portrait of that distinguished coleopterist.

MEETING OF JANUARY 7.

A regular meeting of the New York Entomological Society was held at 8 P.M., January 7, 1919, in the American Museum of Natural History, President L. B. Woodruff in the chair, with twenty members and five visitors present.

The curator reported that work on the Local Collection had progressed in Homoptera, thanks to Mr. Olsen.

Mr. Hall, under the title "Miscellaneous Notes on Maine Butterflies."

exhibited specimens he had taken at West Baldwin and Mt. Desert, Maine, and commented on their distribution, etc. Among the species shown were *Fenesica tarquinius*, *Debis portlandia*, very abundant at West Baldwin, *Grafta J-album*, *Blygonia comma*, *Arcyanis alope*, of which the *nephela* form was rare at West Baldwin, but more common with a complete set of intermediate forms at Mt. Desert. *Thecla calamis* and *edwardsi*, *Eurymus philodice* and *interior* (with its form *laurentica*) *Argynnis atlantis*. He called attention also to the fact that all the specimens were set on flat boards. His remarks were discussed by Mr. Davis, who recalled finding *Fenesica tarquinius* common at Wingina, Va.; Mr. Woodruff, who found it along alder-lined streams, and Mr. Engelhardt, who spoke of a colony in Prospect Park, on alders infested by cottony scale. He said he had found the pupæ in crevices of the bark or among the fallen leaves, their presence being indicated by the ragged appearance of the eaten scale.

In reference to mounting on flat boards, Mr. Davis recalled the success Mr. Pearsall had in mounting geometers in that way.

In reference to *Debis portlandia*, Mr. Notman spoke of its habit of flying indoors in the Adirondacks, and several members gave their experience in finding it a shade-loving butterfly.

Mr. H. B. Weiss read a paper on "Life History and Early Stages of *Brachys, ovata* and *arosa*," illustrated by leaves showing its feeding and larval cells; also by specimens of larvæ and adults. This paper will be printed as joint product of Weiss and Nicolay.

Mr. Davis spoke of *Brachys* on turkey oak in Florida, which pupated in the leaf and of Mr. Manee's mention of the rattling noise caused by the insect moving within the cell in North Carolina, which he also had heard in Florida. Subsequent to the meeting, the following references to the records of the rattling noise made by *Brachys* larvæ or pupæ in oak leaves were found, viz.: Leng, JOURN. N. Y. ENT. SOC., XX, 1912, p. 193; Davis, JOURN. N. Y. ENT. SOC., XX, 1912, p. 305; op. cit., XXII, 1914, p. 267. A reëxamination of the specimen which pupated within the leaf showed it to be *B. tessellata* Fab., placed heretofore as a variety of *B. ovata*, but possibly a distinct species. It should also be said that it is *B. tessellata* that is common at Southern Pine, N. C., where Mr. Manee's observations were made.

Mr. Groth recalled the meeting at Mrs. Slosson's house when the JOURNAL was started and the changes that had taken place in the Society since. After serving the Society as treasurer and president, other duties had prevented his recent regular attendance, but his interest was not lessened and found expression in training boy scouts in entomology.

Mr. Engelhardt said that eye troubles prevented Mr. Doll speaking on "Raising Larvæ in Utah," but having been Mr. Doll's companion he could testify to his industry in that direction and success under trying conditions, which including carrying the breeding cages on horseback. It was difficult to find larvæ in the desert regions of Utah, but two specimens of *Clisio-campa*, shown to be different by breeding, a few Sphingids and Catocalas,

Morumba modesta form *occidentalis*, hatched after their return and *Melittæ minuta* were among his successful efforts.

Mrs. E. Robertson Miller, present as a visitor, spoke of the pleasure she found in interesting children in outdoor things and the good entomologists that resulted. Her book on water insects had been delayed by her serious auto accident, but she hoped would soon be printed to tell of the pleasures of watching their growth hour by hour.

Mr. Halinan exhibited several boxes of insects from Tofo, Chile, and remarked upon their similarity to what we get here in semi-arid country. From the Guaymas River in Ecuador to 26° S. Lat. there is no vegetation except where small rivers fed by melting snow or springs cause an oasis. It was in such an oasis that he made most of his captures.

Mr. Notman exhibited a specimen of *Harpalus fulvilabris* Mann. found at 2,900 feet elevation in the Adirondacks and remarked upon its rarity and the two ocellate subsutural punctures on each elytron, one fifth from apex.

Dr. Bequaert exhibited three rare insects acquired during his visit to Boston.

Mr. Davis exhibited *Dorcasta obtusa* Bates, of which he had taken a specimen May 1, 1912, at South Bay, Lake Okeechobee, Fla. This long-horn is new to our fauna; it is known from Mexico and Central America.

Mr. Davis also exhibited specimens of *Tibicen inauditus* and *Pycnoscelus surinamensis*; his remarks in reference thereto will be found in Miscellaneous Notes.

MEETING OF JANUARY 21.

A regular meeting of the New York Entomological Society was held at 8 P.M., January 21, 1919, in the American Museum of Natural History, President L. B. Woodruff in the chair, with fourteen members and three visitors present.

The curator reported donations to the Local Collection by Mr. Weiss.

Mr. Antoine M. Gaudin, 29 West 91st St., New York City, and Mr. Hiram V. Lawrence, 599 Bedford Ave., Brooklyn, N. Y., were elected active members.

Letters from Lieut. W. J. Chamberlin and Dr. A. Fenyes were read. Mr. Woodruff opened the "Symposium on Legs of Insects" by reading a paper on the legs of dragon flies. Discussion by Messrs. Weiss, Davis, Schaeffer, Bequaert and Notman followed, bringing out the fact that the front legs assist to some extent in capturing prey.

Mr. Leng read a paper on legs of beetles, which was discussed by Dr. Bequaert and Messrs. Schaeffer and Olsen.

Mr. Notman read a paper on legs of Carabidæ, devoted to interesting details of neglected features.

Mr. Davis read a paper on legs of Orthoptera, illustrated by specimens, which was discussed by Dr. Bequaert, who pointed out that the elongate coxæ were found also in the raptorial legs of Diptera; and that the exceptional characters of aquatic Gryllidæ were noteworthy.

Owing to the late hour, the remainder of the papers were postponed to the meeting of February 18.

Mr. W. P. Van Duzee, present as a visitor, spoke of the ornamented tibia and tarsus in the dipterous genus *Dolichopus*, where the femora are always a little flattened and usually clothed with black hair; if, however, the femora are in large part yellow, the hairs also are yellow. In some species the lower edge is glabrous and the lower row of hairs elongate, like a black fringe. In one species there is a bristle on hind femora near tip, with the usual hairs omitted in a glabrous space following.

Mr. E. A. Chapin, also present as a visitor, spoke of the legs of fleas, which he said exhibited great similarity, though the tibial bristles, sometimes longer than the tarsus, the very large coxa (longer than femur), the method of attachment in the high trochanter, and other peculiarities were of interest.

MEETING OF FEBRUARY 4.

A regular meeting of the New York Entomological Society was held at 8 P.M. February 4, 1919, in the American Museum of Natural History, President L. B. Woodruff in the chair, with nineteen members and Prof. H. C. Fall present as a visitor.

Letters from Mr. Dow were read by Messrs. Leng and Davis.

Mr. Woodruff read a paper, "Fall Notes on Alabama Butterflies," illustrated by four boxes of specimens.

Messrs. Davis, Lutz and Shoemaker corroborated his statements in regard to migration of *Catopsilia eubule* and recalled the communications of Mr. Shannon on migration.

Dr. Bequaert read a "Review of Rau's 'Wasp Stories Afeld,'" praising highly their care in obtaining correct identifications, patience in lengthened observation and conciseness while with Col. Robinson at Wingina, Va., as an instance of wasps going to a distance for suitable pebbles to use as pounding tool.

Dr. Lutz recalled Dr. Williston's early notice of wasp's use of tool. Dr. Lutz exhibited casts of burrows of tiger beetle and wasp made by Mr. Wunder under his direction and pointed out the advantages of the method. Two methods were used: (1) The earth around the burrow was hardened by pouring glue or shellac down the hole; the burrow was then dug out; (2) an excavation was made in such a way that a cross section of the burrow was exposed on one face of the excavation; a plaster cast was then made of that face. This plaster cast could be used as an accurate note concerning the burrow, or, using it as a mold, it is frequently possible to get a plaster reproduction of the cross section of the burrow. Of these two methods, the second is the better.

Dr. Lutz also exhibited winged ant clinging to leg of the *Microbember* that had captured it as an instance of the latter using live as well as dead insects.

Mr. Watson read a paper on "The Egg of *Polistes cernis* Boisd. & Lec.," illustrated by blackboard drawings.

Mr. Davis read a paper on a remarkable nest of *Vespa maculata* and the number of queens of *Polistes* that sometimes combine their efforts in nest building.

All the papers referred to will be printed elsewhere.

Prof. H. C. Fall, present as a visitor, spoke of the entomologists of the Pacific Coast and of his work in progress on the genus *Gyrinus*, especially in regard to the number of species that are sometimes associated in a single school.

Mr. Nicolay spoke of his six months' experience as a member of the American Expeditionary Force in France. His being stationed for a time at Bligny on billet duty had permitted of his making some collections of French Carabidæ.